REMARKS

Claims 1-36 are currently pending in the subject application and are presently under consideration. Claims 1, 19, and 20 have been amended as shown on pages 2 to 8 of the Reply. Applicants' representative appreciates the courtesies extended during the telephonic interview for the subject application on March 19, 2008, where it was agreed that the claims as amended may overcome the cited references.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I.   **Rejection of Claims 1-10 and 12-36 Under 35 U.S.C. §103(a)**

Claims 1-10 and 12-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph, *et al.* (US 6,807,274), in view of Bala (US 6,798,876), and further in view of Holt (US 5,896,448). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Joseph, *et al.*, Bala, and Holt, when taken alone or in combination, fail to disclose, teach, or suggest all elements recited in the subject claims. Furthermore, the references could not be combined with a reasonable expectation of success and teach away from combination.

> [T]he prior art reference (or references when combined) must teach or suggest all claim limitations. *See* MPEP §706.02(j). *See In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). [W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious. *See KSR v. Teleflex,* 550 U.S. ___, 127 S. Ct. 1727 (2007) *citing United States v. Adams,* 383 U. S. 39, 51-52 (1966).

Claims 1 and 20

The subject matter as claimed relates to automatically routing telephone calls in an interactive voice recognition system where the call can be routed according to a probability that routing the call will be more advantageous than continuing the interactive voice recognition. The probability can be based at least in part on a decision model trained according to previous calls according to sequences of actions. Additionally, the probability can be based on comparing the current sequence of actions to those used in training the decision model. To this end, independent claim 1, as amended, recites in part *a decision model, associated with the automated call routing component, that employs probability to determine likelihood of success in*

automatically routing the incoming call, the likelihood of success determined based in part on a **sequence of system actions from the incoming call as compared to system actions of one or more previous calls and is re-determined after the occurrence of each system action from the incoming call**, *to mitigate transferring the incoming call to an operator*. Joseph, *et al.*, Bala, and Holt, when taken alone fail to teach or suggest such claimed aspects.

Joseph, *et al.* relates to a system for routing calls between partially automated dialogs and fully automated dialogs. The system evaluates a probability that the fully automated dialog can solve a problem of a user; with high probability, the user is routed from a partially automated dialog to the fully automated dialog. Bala relates to a system for matching callers with customer service representatives having expertise in the caller's problem area. The system can use historical call information to determine which customer service representatives have high caller satisfaction for certain factors and can choose the appropriate representative based on the factors. However, Joseph, *et al.* and Bala, alone or in combination, fail to disclose or suggest a **sequence of system actions from the incoming call as compared to system actions of one or more previous calls and is re-determined after the occurrence of each system action from the incoming call** as recited in claim 1. The Examiner acknowledges the deficiency on pages 3-4 of the Office Action dated January 14, 2008, and offers Holt to cure this deficiency. However, Holt similarly fails in this regard.

Holt relates to a system for routing incoming calls for subscribers of a personal number service (PSN) according to destinations of a routing list having a high number of routed calls. In this regard, Holt aims to reduce the system resource time required to setup a call with a user of a PSN based on evaluating previous success of numbers on the routing list for the user. However, Holt fails to disclose or suggest a **sequence of system actions from the incoming call as compared to system actions of one or more previous calls and is re-determined after the occurrence of each system action from the incoming call** as recited in claim 1.

Applicants' claimed subject matter recites comparing system actions of previous calls to a current call for determining likelihood of success where such is determined as each system action from the call occurs (by looking at actions of previous calls). Holt merely routes calls based on previous success of numbers in a routing list; this is based on steps taken by the routing system. Applicants' claims, however, recite routing calls based at least in part on actions of the incoming call, such as a user pressing a button, and the like.

Claim 20, as amended, recites similar aspects, namely *a sequence of system actions from the call as related to the utility model and is re-determined after the occurrence of each system action according to the utility model.* As shown, the references fail to teach or suggest such aspects.

Thus, it is readily apparent that Joseph, *et al.*, Bala, and Holt, when taken alone or in combination, fail to teach or suggest each and every element of claims 1 and 20. Accordingly, rejection of these claims, as well as, claims 2-10, 12-18, and 21-36, which depend therefrom, should be withdrawn.

Claim 19

Additionally, claim 19, as amended, recites in part a *cost-benefit analysis includes evaluating at least user actions, system actions, session summary features, recognition features, and temporal features of past system calls as well as evaluating outcome of the past system calls.* The references are similarly deficient in this regard. In fact, Joseph, *et al.*, Bala, and Holt are completely silent regarding at least using recognition features and temporal features of *past* calls and evaluating these aspects together with the outcome of the calls in performing a cost-benefit analysis. Thus, rejection of this claim should be withdrawn as well.

Furthermore, the references cannot be combined with a reasonable expectation of success, and in fact, the references teach away from combination. Joseph, *et al.* and Bala relate to routing calls, following connection, to solve problems of users whereas Holt relates to routing calls to connect to users of a PSN according to a high probability that the user will be at the number in the routing list. Thus, if the references are combined, Holt would take place at the outset to ensure a caller reaches the correct number upon dialing. Once that has been determined, Bala could route the caller to a representative. Thus, Holt takes no part in automated dialog portions of the process as it is developed for initiating a call. Additionally, Joseph, *et al.* and Bala teach away from combination with each other as Joseph, *et al.* contemplates routing a caller between fully automatic and partially automatic dialogues whereas Bala actually routes callers to customer service representatives. Thus, this rejection should be withdrawn on these additional grounds.

II.   Rejection of Claim 11 Under 35 U.S.C. §103(a)

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph, *et al.*, in view of Bala, in view of Holt, and further in view of Chittineni (US 4,747,054). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Joseph, *et al.*, Bala, Holt, and Chittineni, when taken alone or in combination, fail to teach or suggest each and every element recited in the subject claim. In particular, Chittineni fails to cure the aforementioned deficiencies of Joseph, *et al.*, Bala, and Holt with respect to claim 1, from which claim 11 depends. Accordingly, this rejection should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP471US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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